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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,543	08/27/2001	Todd Schweitzer	T-3827	6768

7590

07/25/2003

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EXAMINER

NGUYEN, LAM S

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 07/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant No.

09/939,543

Applicant(s)

SCHWEITZER ET AL.

Examiner

LAM S NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 8-11 is/are rejected.
- 7) ☒ Claim(s) 2,6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 recites the limitation "baffle" in "said baffle has perforations defined therethrough". There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1, 4, 5, 8, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolb et al. (US 5613509) in view of Bach (US 5894130).

Kolb et al. disclose an irradiation apparatus comprising:

a NEMA 4 watertight housing that forms an enclosure and which has a floor in which an irradiation window opening (FIG.1, element 20 and column 9, line 49-51),

a quartz window disposed across said window opening in watertight sealed engagement therewith (FIG. 1, element 20 and column 9, line 45-48),

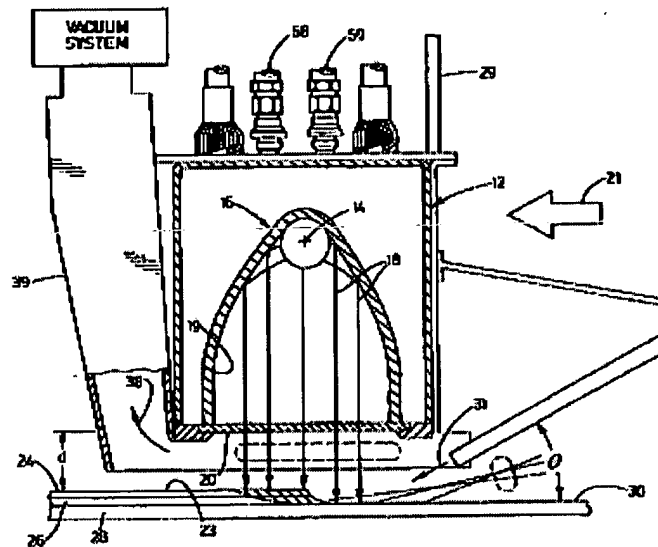
a energy generator (FIG. 1, element 14) positioned within said watertight housing proximate said window opening to emit energy through said quartz window to an area at the exterior of said housing beneath said quartz window (FIG. 1, element 30), and

a reflector positioned within said enclosure relative to said microwave excited

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ultraviolet radiation generator to focus ultraviolet radiation therefrom upon said quartz window (FIG. 1, element 16, 19).

an inlet duct and an outlet duct to said housing for water cooling the energy generator (FIG. 1, element 58-59).



**Referring to claims 4, 8:** wherein said floor of said watertight housing is formed of stainless steel and said watertight housing is further comprised of laterally enclosing upright stainless steel walls extending up from said floor and a stainless steel lid to which said inlet and outlet ducts are joined (FIG. 1).

Kolb et al. do not disclose that the energy generator is a microwave excited ultraviolet radiation generator includes an electrodeless lamp that produces ultraviolet radiation cooled by directing cooling air toward the electrodeless lamp and withdrawing from the housing air that has passed the electrodeless lamp.

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However, Bach discloses an ultraviolet sterilization unit that includes a microwave excited ultraviolet radiation generator includes an electrodeless lamp that produces ultraviolet radiation (Abstract), cooled by directing cooling air toward the electrodeless lamp and withdrawing from the housing air that has passed the electrodeless lamp (FIG. 1), to destroy bacteria and other micro-organisms in the air or on exposed surface (**Referring to claims 9, 10, 11**).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to replace the energy generator cooled by water disclosed by Kolb et al. by the microwave excited ultraviolet radiation generator cooled by air as disclosed by Bach. The motivation of doing so is to destroy bacteria and other micro-organisms in the air or on exposed surfaces as taught by Bach (column 1, line 23-24).

***Allowable Subject Matter***

2. Claims 2, 6, 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Referring to claims 2, 6:** The most pertinent arts Kolb et al. (US 5613509) in view of Bach (US 5894130) fail to disclose the comprising of a baffle located within said watertight housing and positioned in the path of said air inlet duct to aid in deflecting air from said air inlet duct toward said electrodeless lamp and on to said air outlet duct. Therefore, the claimed invention is not disclosed by the cited prior arts.

**Referring to claim 7:** Allowable since its dependence on the allowable claim 6.

***Response to Arguments***

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Applicant's arguments filed 06/30/2003 have been fully considered but they are not persuasive.

**Regarding to the argument on page 12, last paragraph:** The applicants argued that there is no suggestion in either reference to make substitutions and reconstructions of the devices shown in Kolb et al. and Bach. However, it is obvious for one having ordinary skill in the art to cool down a system by air instead of water. Therefore, the combination of Kolb et al. and Bach is reasonable.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (703)305-3342. The examiner can normally be reached on 7:00AM - 3:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (703)308-4896. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3431 for regular communications and (703)305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

LN

July 22, 2003



Stephen D. Meier  
Primary Examiner